Elementary Hybrid and Virtual Teacher Stress during COVID-19

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During the 2020-2021 school year, the COVID-19 pandemic pushed many school districts to implement alternative teaching approaches including, socially distanced classrooms with hybrid teaching schedules or all virtual instruction. This study aimed to gain insight into the impact of COVID-19 on hybrid and virtual elementary teacher stress. Specifically, the current study focused on elementary teacher stress one month into instruction. The researcher sampled 312 elementary teachers from 16 states with 104 hybrid teachers and 208 all virtual teachers using a survey design. The results suggested significant correlations and predictor variables for teacher stress. Predictor variables for teacher stress included COVID-19 anxiety, current anxiety, anxiety communicating with parents, and administrative support. Additionally, the results included short answer responses to provide teacher perspectives on the study's variables. Based on the results, teachers need support during this unprecedented time. Support might include instructional, technology, or emotional support from school administrators or districts.

Keywords: teacher stress; COVID-19; elementary teaching; virtual instruction; hybrid instruction

During the spring of 2020, the Coronavirus disease pandemic (COVID-19; Center for Disease and Prevention, 2020) drastically impacted society as a whole and moved K-12 schools to a virtual format (Wu et al., 2020). As elementary teachers returned to instruction for the 2020-2021 school year, many returned to drastically different learning environments, routines, and instructional approaches. Teachers faced new requirements for instruction, job expectations, and classroom environments. Districts pushed teachers to learn new virtual instruction pedagogy and platforms and made teachers the first resource for parents who had questions and concerns about district instructional technology, safety protocols, and instructional practices. With changes to instructional approaches, teachers, schools, and districts faced many challenges when providing hybrid and virtual teaching. These challenges included technology issues for students who may not have internet access or access to proper technology (Simmons, 2020), teachers incorporating new approaches to planning and instruction (Honigsfeld & Nordmeyer, 2020), and requiring teachers to learn new technology platforms (Wiggins, 2020). In addition to technology and instructional issues, teachers also struggled to get students to engage during virtual instruction and faced high absenteeism rates for students during virtual instruction periods (Leech et al., 2020). With all the new challenges and COVID-19 policies teachers faced, it is important to understand their impact on teachers who taught hybrid and virtually fall 2020.

Though the new challenges and demands may have been necessary to return to school during COVID, they added to teachers' already full workloads, which even before COVID-19 impacted teacher stress (Ferguson et al., 2012). Furthermore, with all the new demands teachers faced coming back to the classroom during the COVID-19 pandemic, they also faced the possibility of new stressors such as the threat of catching COVID-19, developing new lessons to

meet new requirements, implementing COVID-19 safety protocols, and implementing district technology requirements. With the new challenges teachers faced during the COVID-19 pandemic, it is crucial to understand how they may impact teacher stress. Thus, the purpose of this study was to gain insight into the impact of COVID-19 on hybrid and virtual elementary teacher stress one month into the 2020-2021 school year. The researcher asked the following research questions to explore elementary teacher stress and anxieties during the COVID-19 pandemic.

1) According to teachers, what factors predict teacher stress during hybrid and virtual instruction during COVID-19?

2) What are teachers' perceptions of stressors during COVID-19?

The researcher believed it was essential to explore these questions to gain insight into the effects on teachers' during the COVID-19 pandemic. Throughout the first month, elementary teachers had the opportunity to adjust to the new instructional requirements and district-provided technology. However, because of the ever-changing influence of COVID-19, teachers faced changes in instructional approaches and district policies. Research on the impact of COVID-19 and education has only begun and is still limited (Bintliff, 2020; Marshall et al., 2020; Pressley, 2021). Previously, Pressley (2021) found that elementary and secondary teachers, no matter the instructional approach (face-to-face, hybrid, or virtual), had a high level of stress and anxiety during COVID-19 across K-12 teachers. Additionally, the predictor variables included COVID-19 anxiety, anxiety communicating with parents, anxiety teaching, and administrative support. Another article focused on the impact of COVID-19 on teachers found that teachers struggled to balance their own lives while teaching from home, which led to higher stress levels (Bintliff, 2020). Based on the previous literature, the researcher hypothesized that predictor variables of

teacher stress would include anxiety communicating with parents, COVID-19 anxiety, anxiety

teaching, and administrative support. Additionally, because the sample only included hybrid and

virtual elementary teachers, the researcher hypothesized that anxiety with district technology and

virtual instruction would predict teacher stress.

Teacher Stress

Prior to the COVID-19 pandemic, teaching was a stressful job, with close to 8% of

teachers leaving teaching (Fitchett et al., 2017; Harmsen et al., 2018; Herman et al., 2018), with

40-50% of teachers leaving teaching during the first five years (Ryan et al., 2017). Previous

studies have examined a wide range of potential variables that impacted teacher stress, including

the school environment, classroom factors, and instructional factors (Ryan et al., 2017; Stoeber

& Rennert, 2008). Kyriacou (2001) defined teacher stress as "the experience by a teacher of

unpleasant, negative emotions, such as anger, tension, frustration, or depression, resulting from

some aspect of work as a teacher" (p. 28). However, he stated that other stress models also

included pressure and demands, teachers' ability to cope with demands, and teacher burnout

(Kyriacou, 2001; Maslach & Leiter, 2016). Therefore, it is important to understand teacher stress

as it can influence teachers in several ways, including burnout or resignation from teaching

altogether (Klassen & Chiu, 2010; Kyriacou, 2001).

Within the school environment, several factors may impact teacher stress, including

required testing (Lambert et al., 2018; Nathaniel et al., 2016; Ryan et al., 2017), the student

population (Bottiani et al., 2019; Herman et al., 2018), and other teachers within the building

(Bottiani et al., 2019; Ferguson et al., 2012; Skaalvik & Skaalvik, 2015). Specifically, Ryan et al.

(2017) found states that use test-based accountability systems as part of the teacher evaluation

system was directly related to teacher stress. This stress also led to higher rates of attrition within

the teaching profession. However, if a teacher felt high amounts of pressure within the school

from administrators, the researchers found a negative prediction rate with attrition (Ryan et al.,

2017). Going beyond testing, school demographics, and resources provided to teachers may also

impact teacher stress, with teachers teaching in lower socioeconomic schools and fewer

resources having higher levels of stress (Bottiani et al., 2019; Herman et al., 2018). Finally, other

teachers in the school may also impact a teacher's stress. This impact may have a negative effect

on teacher stress when faced with disagreements between team members or if individual goals do

not align with the grade level team. However, other teachers may positively affect teachers by

creating a sense of job satisfaction and support among teachers (Bottiani et al., 2019; Skaalvik &

Skaalvik, 2015).

A primary source of teacher stress within the classroom environment was student

behavior (Bottiani et al., 2019; Lambert et al., 2007), with student behavior being a significant

predictor of teachers leaving teaching (Ferguson et al., 2012; Skaalvik & Skaalvik, 2015).

Bottiani et al. (2019) recently found that disruptive student behavior had a positive association

with teacher stress and burnout; however, this association decreased with support from resources,

so much so that no association existed between student behavior and stress when resources were

available to teachers. Teacher stress may also impact the classroom environment, with higher

stress leading to less effective classroom practice (Braun et al., 2019; Larson et al., 2018) and

ineffective learning environments (McLean & Connor, 2015).

At an individual level, the day-to-day work requirements led to a majority of stress for

teachers. Specifically, teachers felt overworked due to the implantation of new curriculums and

initiatives, hectic workdays, and limited time to complete tasks such as preparing for teaching,

making necessary copies, and communicating with stakeholders (Ferguson et al., 2012; Skaalvik

& Skaalvik, 2015). In particular, females reported higher stress levels and burnout than their

male counterparts due to the heavy workload (Bottiani et al., 2019; Klassen & Chiu, 2010). The

heavy workload led teachers to feelings of exhaustion, lower self-efficacy, and lower self-esteem

(Bottiani et al., 2019; Skaalvik and Skaalvik, 2015). Teachers also felt pressure from student

parents (Pelletier et al., 2002; Stoeber & Rennert, 2008). Specifically, Stoeber and Rennert

(2008) found that teachers often strived for perfection because of students' parents in their class.

Striving for perfection added stress and was associated with exhaustion and burnout. Similarly,

Pelletier et al. (2002) found pressure from parents to contribute to teacher burnout, especially in

private schools where parents may have higher demands because they pay for their child's

education.

Method

This exploratory, mixed-methods study focused on teachers' stress during the 2020-2021

school year, which saw many school districts take on alternate approaches to instruction due to

the COVID-19 pandemic. Specifically, the researcher used survey data to analyze predictor

variables for teacher stress and qualitative data (open-ended responses) to explore stressors for

teachers teaching in a hybrid or virtual format.

Participants

To provide insight into the impact of teaching during the COVID-19 pandemic on teacher

stress, sampling included convenience and snowball (N=312) to recruit teachers across the

United States (16 states) to complete the electronic survey the first week of October 2020. The

researcher decided on this time frame as it allowed teachers to settle into the school year and

provide insight into stressors and anxieties teachers faced beyond the first couple of week

challenges (e.g., roster changes due to students enrolling late or new schedules). The Institutional

Review Board of the researcher approved the study, and the researcher followed ethical

guidelines of the American Psychological Association in the completion of the research.

To qualify, teachers had to currently teach at an elementary school in the United States.

For the current study, elementary teachers consisted of teachers teaching K-5. The sample

included 104 (33%) hybrid teachers and 208 (67%) all virtual teachers when surveyed.

Demographics of the sample included 265 (84.9%) Caucasian/white, 26 (8.3%) Hispanic, 10

(3.2%) Black, 8 (2.5%) Asian/Pacific Islander, and 3 (1%) American Indian/Alaskan Native.

Teacher experience ranged from 0-33 years of teaching experience ($M = 13.66$, $SD = 9.14$). The

sample included teachers who taught at a range of school locations, with 192 (61.5%) identifying

their current school as suburban, 58 (18.6%) rural, and 62 (19.9%) Urban.

Survey

The electronic survey included three different scales to measure teacher stress. The first

scale included was the COVID Anxiety Scale (CAS; Lee, 2020; $\alpha=.90$). The CAS is a five-

question survey that asks participants to rate how often they have experienced stress and anxiety

due to COVID-19 in the last two weeks. An example question includes, "I had trouble falling

asleep because I was thinking about the coronavirus." Answers included a five-point scale

ranging from 0 (*not at all*) to 4 (*nearly every day*). A score of ≥ 9 indicates COVID-19 related

anxiety (Lee, 2020).

The survey also included five one-item anxiety questions (Davey et al., 2007) focused on

teaching during fall 2020. Davey et al. (2007) found a one-item anxiety scale to adequately

measure anxiety with associated results to the 20 question Spielberger State Trait Anxiety

Inventory. In the current study, the researchers scored each question separately with answers

ranging on a five-point scale from 1 (*not at all anxious*) to 5 (*extremely anxious*). To measure the

outcome variables of beginning of the year anxiety and current anxiety, the current study utilized the questions, "How did you feel at the beginning of the 2020 school year?" and "How do you currently feel about teaching?" Additionally, the current study explored predictor variables using the questions, "How do you feel using the technology provided by your district?", "How do you feel communicating with parents during the 2020 school year?" and "How do you feel communicating with administrators during the 2020 school year?"

Additionally, the survey included subscales of teacher stress ($\alpha=.80$) and administration support ($\alpha=.84$; Seidman & Zager, 1986). The teacher stress and administration support scales presented teachers with questions about their perspective on teaching with responses including a 6-point scale ranging from *strongly agree* to *strongly disagree*. Example questions included, "I find it difficult to calm down after a day of teaching," and "I believe that my efforts in the classroom are unappreciated by the administrators." Teacher stress and administration support scores ranged from 6-36, with a higher score suggesting higher stress and administration support (Seidman & Zager, 1986).

The last question of the survey provided teachers an opportunity to provide more details on their thoughts of returning to teaching during COVID-19 with the open-ended question, "What have been the biggest challenges you have faced as a teacher during fall 2020?"

Data Analysis

Data analysis used Pearson's correlation to determine the association between stress and the nine variables, which included teacher stress, anxiety returning to teaching during fall 2020, anxiety using district technology, anxiety providing virtual instruction, current anxiety (approximately one month into the school year), anxiety communicating with parents, anxiety communicating with administrators, teacher perception of administrator support, and COVID-19

anxiety. Additionally, the researcher conducted a hierarchical multiple regression model to determine predictor variables, controlling for ethnicity, location (rural, urban, & suburban), and years of teaching experience. Lastly, the researcher screened the data to check that the assumptions for multiple regression analyses were met. No issues were found with singularity, multicollinearity, dependence of errors, normality, linearity, or homoscedasticity of residuals (Tabachnick & Fidell, 2001).

To analyze the qualitative data of the short-response question, the researcher used open-coding to develop themes from teachers' short response answers at the end of the survey (Strauss & Corbin, 1998). The inclusion of the qualitative data provided insight into the constructs of teacher stress and shared teacher perceptions of teaching stressors during COVID-19 (Braun et al., 2020).

Results

Teacher Stress

The results suggested the teachers in the current sample had high levels of stress ($M = 25.16$, $SD = 7.40$). Additionally, a further analysis using Pearson's r discovered significant, moderate correlations with current anxiety ($r = .47$, $p = .000$), COVID-19 anxiety ($r = .46$, $p = .000$), anxiety communicating with parents ($r = .40$, $p = .000$), and anxiety communicating with administrators ($r = .33$, $p = .000$). The analysis also suggested significant, weak correlations with administrative support ($r = .29$, $p = .000$), anxiety using district technology ($r = .19$, $p = .001$), and anxiety providing virtual instruction ($r = .15$, $p = .010$). See Table 1 for full correlation table.

Table 1

Correlations and Descriptive Statistics

	M	*SD*	1	2	3	4	5	6	7	8	9
1. Stress	25.2	7.40	-								
2. Anxiety the first week of the 2020 school year	3.1	0.70	0.09	-							
3. Anxiety using district technology	2.88	0.77	0.19**	0.56**	-						
4. Anxiety providing virtual instruction	3.02	0.71	0.15*	0.71**	0.69**	-					
5. Current Anxiety (Approx. month into school year)	2.69	0.78	0.46**	0.50**	0.46**	0.47**	-				
6. Anxiety communicating with parents	2.49	0.91	0.40**	0.37**	0.31**	0.42**	0.53**	-			
7. Anxiety communicating with administrators	2.28	0.95	0.33**	0.18**	0.21**	0.22**	0.34**	0.42**	-		
8. Teacher perception of Administrator Support	16.71	7.73	0.29**	0.02	0.07	0.03	0.14*	0.16**	0.57**	-	
9. CAS	3.37	3.64	0.46**	0.16**	0.12*	0.08	0.28**	0.27**	0.20**	-0.18**	-

Note. $N= 312$.
* $p < .05$. ** $p < .01$.

After controlling for the variables of ethnicity, location, and teaching experiences, the regression indicated that the model explained 40% ($R^2=.40$) of the variance and the model was significant, $F(3, 311)= 20.11$, $p = .000$. Specifically, four variables remained as significant predictors for teacher stress, those being COVID-19 anxiety ($\beta= .31$, $p = .000$), current anxiety

($\beta = .30$, $p = .000$), anxiety communicating with parents ($\beta = .19$, $p = .002$), and administrative support ($\beta = .17$, $p = .003$). See Table 2 for predictor variables.

Table 2

Significant Predictors of Teacher Stress

	B	SE	β	t	p
Administrative Support	0.16	0.05	0.17	3.03	0.003
CAS	0.63	0.10	0.31	6.47	0.000
Current Anxiety	2.82	0.56	0.30	5.07	0.000
Anxiety communicating with parents during the 2020 school year?]	1.50	0.47	0.19	3.18	0.002

Teacher Perspective of Stress

The qualitative data found 102 teachers mentioned heavy workloads and unrealistic expectations. Specifically, 53 teachers shared feeling overwhelmed with the amount of work asked of them this year. Additionally, 21 hybrid teachers felt overwhelmed because they were teaching students in person and online simultaneously. As one teacher shared, "We are being asked to work two jobs with the compensation of one. It is nearly impossible to make sure my in-person and virtual students are learning the content. It is just frustrating." A second hybrid teacher shared, "I feel like I have two full-time jobs teaching hybrid. I can't keep up, and I am totally overwhelmed."

Tying into the theme of overwhelmed teachers, a second construct leading to teacher stress included unrealistic expectations set by school administrators and districts ($N = 27$). Some of the expectations teachers shared focused on schools and districts putting "too much on teachers'' plates" and "not enough time to complete administrative expectations for each student." Other unrealistic expectations shared by teachers include learning a new learning

management system for providing assignments and the number of lesson plans required, especially for hybrid teachers who had to provide lesson plans for virtual and in-person groups of students. As one teacher shared, "There is absolutely no way I can meet the expectations handed down from above. I am sick and tired of hearing 'problem solve' and 'be creative' from people who have no idea what being a teacher is like these days." Because of the unrealistic expectations and overwhelming feelings, 12 teachers mentioned the lack of balance between work and life. As a hybrid teacher shared, "Work comes home every single night for hours, there is not enough time in the day to get everything done that is required." A second hybrid teacher shared similar thoughts, "I am exhausted from all the work. Last week I logged 47 hours at home after my school hours. I don't know if I can keep this up!" Virtual teachers also shared challenges regarding the lack of balance between life and work, with one stating, "I feel like I am on call for students, parents, and administrators 24/7. I am on virtual meetings all day and evening trying to take care of my kids."

The qualitative data found only 11 teachers mentioned COVID-19 in their short answer responses. Out of the responses, 8 teachers shared that they did not feel adequately protected from the virus returning to a hybrid format. For example, one hybrid teacher shared, "Teachers are expected to expose themselves without proper precautions taken by the district to ensure their safety." Additionally, 2 teachers shared fears of contracting the virus and passing it along to family members, and 1 feared other teachers and students in the school would not follow COVID-19 protocols, such as mask-wearing.

Teacher Perspective of Parents

The qualitative analysis found 49 teachers identified parents as a challenge they had faced through the school year's first month. Specifically, 22 teachers shared that parents were not

supportive of instruction at home, 22 teachers shared parents having unrealistic expectations/ anger towards teachers, 5 teachers shared were unable to contact parents, and 4 teachers shared frustrations with parents not knowing how to use the technology.

Regarding parent support of instruction at home, teachers specifically shared that parents did not ensure their students completed assignments or attended virtual classes. As shared by an all-virtual teacher, "I have a hard time getting ahold of parents or getting them to support their child completing work." Similarly, a hybrid teacher shared, "Parents refuse to make their kids work on virtual days." Another common theme shared by the sample of teachers about parents focused on parents' unrealistic expectations of teachers and anger toward teachers. This included parent frustration with all-virtual schools not going back to at least a hybrid schedule or parent frustration in general. One all-virtual teacher shared that she believed the perception parents had of teachers also came from the media. "The negative feedback and perception of teachers in the media and with parents are terrible. We are not lazy; we just want to be safe!" Another all-virtual teacher shared, "Dealing with parents who are not happy about their kids learning remotely has been a daily struggle."

Teachers have also been the first contact for teachers during the return to learning of 2020-2021, which has led to teachers receiving the blunt of parent anger with teachers sharing, "Belligerent parents have been the biggest challenge I have faced," and "Parents are blaming teachers for everything from technology not working to students not completing work." Seven additional teachers noted "angry parents" as the most significant challenge they had faced but did not provide any more detail about their interactions with parents. Furthermore, an all-virtual teacher shared that parents in her district went beyond sharing frustrations with teachers but criticized teachers on social media and at school board meetings. "Parents are stressed and don't

generally understand what teachers do. They are criticizing every decision and instructional

approach on social media and at school board meetings. It's like teachers cannot do anything

right!"

Discussion

The results of this exploratory study suggest that teachers who returned to the classroom

in 2020-2021 during the COVID-19 pandemic felt high levels of stress approximately one month

into the school year. Specifically, predictor variables for teacher stress included CAS, current

teaching anxiety, anxiety communicating with parents, and administrative support. However, the

variables focused on technology and virtual instruction did not predict teacher stress. The results

also provide teacher perspective on stress suggesting the workload, COVID-19, and parents'

strong influence on teacher stress.

With limited research available on the impact of COVID-19 on teaching, the current

findings elucidate variables that are most proximal to teacher stress, and thus, what topics

schools, districts, and researchers need to attend to maintain the critical teaching workforce.

Additionally, the qualitative data provided insight into specific aspects that influenced teacher

stress. Finally, with the changes brought on by the COVID-19 pandemic, the results suggest that

teachers are facing new challenges, which are affecting teachers' stress.

The current results are understandable, and teachers need support during this

unprecedented time (Bottiani et al., 2019; Herman et al., 2018). Support might include

instructional, technology, or emotional support to ease teacher stress. During the return to

learning process, teachers felt high stress levels due to several variables, including anxiety,

parent communication, administrator support, and COVID-19 anxiety. Additionally, teachers

shared feeling overwhelmed with the amount of work and tasks districts and administrators

asked of them. Though teacher stress stemming from day-to-day requirements is not abnormal for teachers (Ferguson et al., 2012; Skaalvik & Skaalvik, 2015), teachers faced different requirements and expectations during the COVID-19 pandemic, such as balancing in-person and virtual students and new learning management systems. District and school administrators need to provide supportive environments and instructional guidance to teachers to ease stress around instruction by guiding instructional expectations and support from the top-down. Furthermore, districts and schools may need to take a step back and determine the purpose of each task they ask teachers to complete. It may be necessary to have teachers focus on essential skills and tasks for student learning rather than adding extra communication, instruction, or administrative tasks to teachers' workload.

Districts can support teachers through several outlets, such as providing relevant professional development (PD) for instructional technology, supporting teacher communication with parents, and support teacher mental health. To support teacher mental health, districts can provide telehealth options for teachers to have an outlet outside the school to address stress teachers may have during the school year. Districts may also provide teachers a mental health day to support the greater degree of self-care needed during these stressful times. Within the school building, administrators can also provide a supportive environment by talking to teachers about their needs, resources, and expectations (Bottiani et al., 2019; Herman et al., 2018). At the district or state level, policymakers may consider removing testing requirements for the current school year (Nathaniel et al., 2016; Ryan et al., 2017) as teachers, schools, and families are working through the challenges of the COVID-19 pandemic.

Lastly, teaching virtually or in a hybrid setting is new for all teachers. Districts need to support teachers learning of new learning platforms and use of district technology. This includes

gathering information from teachers on relevant PD and providing accessible daily support within the school building (Bottiani et al., 2019; Herman et al., 2018). Additionally, as the primary contact for parents, teachers often receive the brunt of parents' criticisms regarding educational decisions made by the district or school. Districts and schools need to support teachers' communication with parents by providing clear communication and support to parents at the district and school levels. Though communication between teachers and parents is important, schools and districts need to support teachers, especially when communicating with parents who are quick to blame the teacher for any educational issue as this may lead to teacher burnout (Pelletier et al., 2002).

Limitations and Future Directions

The current study is one of the first to explore the potential effects of returning to teaching during fall 2020. However, the current study had some limitations that future studies should look to address. First, data collection occurred at one point in time during the fall 2020 academic school year; given the assumption that teacher perspectives may change throughout the year, a longitudinal study should examine teacher stress throughout the school year. Furthermore, a longitudinal study would allow researchers to track changes in teacher stress as many districts look to change instructional approaches, with districts transitioning from all virtual instruction to a hybrid format and eventually to all in-person.

Second, the current study had a limited sample size of teachers and unequal groups for all teacher subgroups. This may limit the external validity and thus, researchers should be cautious with the generalizability of the results. Future studies should include larger sample sizes and equal samples of teachers based on locations, instructional type, and demographics. Lastly, future studies could implore more robust survey instruments to measure teacher stress and more

robust qualitative data. Though the instruments used in the current study have strong validity and reliability, future research may consider alternative instruments to gain more insight into a particular construct.

In conclusion, the current study found hybrid and virtual elementary teachers faced high stress levels one month into the 2020-2021 school year. Specifically, teachers shared thoughts on feeling overwhelmed with work, unrealistic expectations, and challenging parents. The current results also suggest predictor variables that may influence teacher stress. Future research should continue to investigate the impact of COVID-19 on teachers as they are essential workers during the COVID-19 pandemic. Schools and districts need to understand the potential impact on teachers as they navigate the challenges of teaching during a pandemic.

References

Bintliff, A. (2020, September 8). How COVID-19 has influenced teachers' well-being [Blog post]. *Psychology Today*.

Bottiani, J. H., Duran, C. A., Pas, E. T., & Bradshaw, C. P. (2019). Teacher stress and burnout in urban middle schools: Associations with job demands, resources, and effective classroom practices. *Journal of School Psychology*, *77*, 36-51. https://doi.org/10.1016/j.jsp.2019.10.002

Braun, S. S., Roeser, R. W., Mashburn, A. J., & Skinner, E. (2019). Middle school teachers' mindfulness, occupational health and well-being, and the quality of teacher-student interactions. *Mindfulness*, *10*(2), 245-255. https://doi.org/10.1007/s12671-018-0968-2

Braun, V., Clarke, V., Boulton, E., Davey, L., & McEvoy, C. (2020). The online survey as a qualitative research tool. *International Journal of Social Research Methodology*, 1-14. https://doi.org/10.1080/13645579.2020.1805550

Center for Disease Control and Prevention. (2020, April 27). *Coronavirus Disease 2019*. Center for Disease Control and Prevention. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/global-covid-19/index.html

Davey, H. M., Barratt, A. L., Butow, P. N., & Deeks, J. J. (2007). A one-item question with a Likert or Visual Analog Scale adequately measured current anxiety. *Journal of clinical epidemiology*, *60*(4), 356-360. https://doi.org/10.1016/j.jclinepi.2006.07.015

Ferguson, K., Frost, L., & Hall, D. (2012). Predicting teacher anxiety, depression, and job satisfaction. *Journal of teaching and learning*, *8*(1). 27-42. https://doi.org/10.22329/JTL.V8I1.2896

Fitchett, P. G., McCarthy, C. J., Lambert, R. G., & Boyle, L. (2017). An examination of US first-year teachers' risk for occupational stress: Associations with professional preparation and occupational health. *Teachers and Teaching: Theory and Practice*, *24*(2), 99-118. https://doi.org/10.1080/13540602.2017.1386648

Harmsen, R., Helms-Lorenz, M., Maulana, R., & van Veen, K. (2018). The relationship between beginning teachers' stress causes, stress responses, teaching behaviour and attrition. *Teachers and Teaching*, *24*(6), 626-643. https://doi.org/10.1080/13540602.2018.1465404

Herman, K. C., Hickmon-Rosa, J. E., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. *Journal of Positive Behavior Interventions*, *20*(2), 90-100. https://doi.org/10.1177/1098300717732066

Honigsfeld, A. & Nordmeyer, J. (2020). Teacher collaboration during a global pandemic. *Educational Leadership* [Special report], *77*, 47-50.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of educational Psychology*, *102*(3), 741-756. https://doi.org/10.1037/a0019237

Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational review*, *53*(1), 27-35. http://0-dx.doi.org/10.1080/00131910120033628

Lambert, R., Fitchett, P., McCarthy, C., & Eyal, M. (2018). Examining elementary teachers' risk for occupational stress: Associations with teacher, school, and state policy variables. *Teachers College Record*, *120*(12), 1-42.

Lambert, R. G., McCarthy, C., O'Donnell, M., & Melendres, L. (2007). Teacher stress and classroom structural characteristics in elementary settings. *Emerging thought and research on student, teacher, and administrator stress and coping*, *5*, 109-130.

Larson, M., Cook, C. R., Fiat, A., & Lyon, A. R. (2018). Stressed teachers don't make good implementers: Examining the interplay between stress reduction and intervention fidelity. *School Mental Health*, *10*(1), 61-76. https://doi.org/10.1007/s12310-018-9250-y

Lee, S. A. (2020). Coronavirus Anxiety Scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies.* https://doi.org/10.1080/07481187.2020.1748481

Leech, N. L., Gullett, S., Howland Cummings, M., & Haug, C. A. (2020). Challenges of remote teaching for K-12 teachers during COVID-19. *Educational Leadership in Action*, *7*(1).

Maslach, C. & Leiter, M. P. (2016). Burnout. In Fink, G. (Ed.), Stress: Concepts, cognition, emotion, and behavior (pp.351-357). Academic Press.

Marshall, D. T., Shannon, D. M., & Love, S. M. (2020). How teachers experienced the COVID-19 transition to remote instruction. *Phi Delta Kappan*, *102*(3), 46-50.

McLean, L., & Connor, C. M. (2015). Depressive symptoms in third-grade teachers: Relations to classroom quality and student achievement. *Child development*, *86*(3), 945-954. https://doi.org/10.1111/cdev.12344

Nathaniel, P., Pendergast, L. L., Segool, N., Saeki, E., & Ryan, S. (2016). The influence of test-based accountability policies on school climate and teacher stress across four states. *Teaching and Teacher Education*, *59*, 492-502. https://doi.org/10.1016/j.tate.2016.07.013

Pelletier, L. G., Séguin-Lévesque, C., & Legault, L. (2002). Pressure from above and pressure from below as determinants of teachers' motivation and teaching behaviors. *Journal of educational psychology*, *94*(1), 186-196. https://doi.org/10.1037/0022-0663.94.1.186

Pressley, T. (2021). Factors contributing to teacher burnout during COVID-19. *Educational Researcher*, *50* (5), 325-327. https://doi.org/10.3102/0013189X211004138

Ryan, S. V., Nathaniel, P., Pendergast, L. L., Saeki, E., Segool, N., & Schwing, S. (2017). Leaving the teaching profession: The role of teacher stress and educational accountability policies on turnover intent. *Teaching and Teacher Education*, *66*, 1-11. https://doi.org/10.1016/j.tate.2017.03.016

Seidman, S. A., & Zager, J. (1986). The Teacher Burnout Scale. *Educational Research Quarterly*, 11(1), 26-33.

Simmons, D. (2020). Why COVID-19 is our equity check. *Educational Leadership* [Special report], *77,* 51-53.

Skaalvik, E. M., & Skaalvik, S. (2015). Job Satisfaction, Stress and Coping Strategies in the Teaching Profession-What Do Teachers Say?. *International education studies*, *8*(3), 181-192. http://dx.doi.org/10.5539/ies.v8n3p181

Stoeber, J., & Rennert, D. (2008). Perfectionism in school teachers: Relations with stress appraisals, coping styles, and burnout. *Anxiety, stress, and coping*, *21*(1), 37-53. https://doi.org/10.1080/10615800701742461

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research* (2nd ed.). Sage.

Tabachnick, B. G., & Fidell, L. S. (2001). Chapter 4. Cleaning up your act. *Using Multivariate Statistics. 4th ed.* Allyn and Bacon.

Wiggins, A. (2020). A brave new world: A teacher's take on surviving distance learning. *Educational Leadership* [Special report], *77,* 38-41.

Wu, J., Smith, S., Khurana, M., Siemaszko, C., & Dejesus-Banos, B. (2020, March 25). Stay-at home orders across the country: What each state is doing-or not doing-amid widespread coronavirus lockdowns. *NBC News*. https://www.nbcnews.com/health/health-news/here-are-stay-home-orders-across-country-n1168736